

Notebook

Aug. 27 - Sept. 11, 1930

Chosen (Korea)

W. J. Morse.

U. S. Dept. of Agriculture

Notebook.

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U.S. Dept. Agr.

Washington D.C.

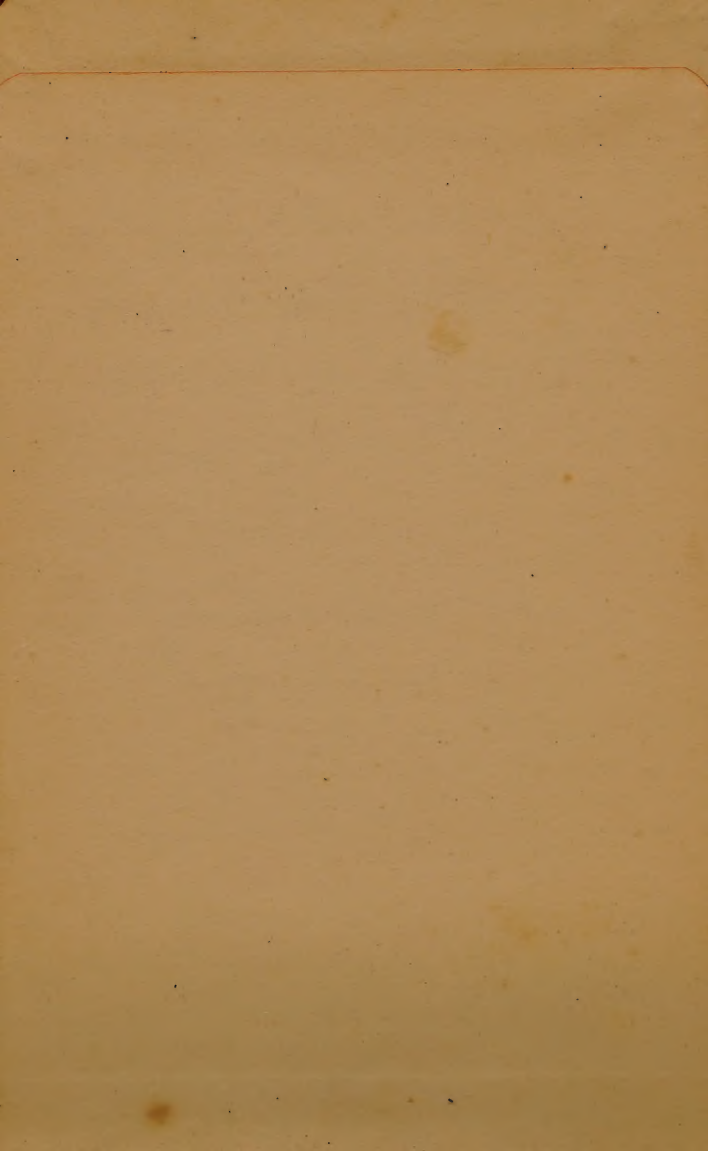
August 27-

1930.

Manchuria

Chosen

Written up.



Wednesday - August 27, 1930.

Heiwa Chosen.

Chuwa Chosen.

We left on the 9.30 A.M.
mixed train for Chuwa
where we arrived at
10 A.M. The village is about
one mile from the railway
station. After we passed
through the gate a police
wanted to know where
we were from and also
what we were doing. He
directed us to the Village
Agr. Society where we
met Mr. [unclear] the
director and Mr.
the agricultural engineer.
We were advised that on
the west side of the country
paddy and upland

rice were grown most extensively while on the east side, soybeans, millet, kaoliang, mung beans and adzuki beans were the leading crops.

Soybeans are grown quite extensively alone but are also quite generally grown with corn, millet and kaoliang. With the mixed crops the variety of soybean is generally the large seeded sort while on the edges of fields and alone the smaller seeded native varieties are used.

Two improved varieties, Heigo and

Hokkaido, have been
tried out but do not
find favor. They are
said to have rather
thick skins and not
so suitable for miso,
soy sauce and bean
curd as the native
varieties which have
much thinner skins.
The farmers use the
soy bean seed for cattle
feed, and for miso and
soy sauce. They are also
used to some extent
boiled and mixed with
barley for food.

Soy beans are quite
generally grown for seed
in this country. Mr.
advised that

He could collect a large number of native varieties for us and would be glad to do so this fall and winter. In the county they have three model soybean seed farms scattered about at different places.

After our visit to the Agr. Society we took the main road to Heigo which is about 15 miles from Chuma. About one mile out of Chuma we found along the roadside in a wet place a considerable patch of *Aeschynomene indica* a lot of which we

observed in the green
maize experiments
at the Kotori Exper. Sta.
Kobkoids last summer.
We were fortunate in
finding quite a little
mature seed to day and
collected a pint bag
full.

A very interesting thing
along the way was the
growing of gourds on
the thatched roofs of
the Korean houses. Very
seldom did we see a
house without gourds
on the roofs.

We saw in the course
of our travels some
excellent fields of soy-
beans alone. There
were also many

mixed plantings with
soybeans.

Soybeans and corn.
The corn was planted
in the bean row, one
stalk about every 8 feet.
We saw some Korean
women gleaning and
dusking green corn for
roasting ears. The grains
were mixed, Row 2 1/2 in. apart.

Sorghum and soybeans.

The sorghum plants
one to two plants per hill
were about 3 feet apart
and a hill of soybeans
between the kaoliang
hills.

In some fields hills
of soybeans were planted
to the side of the

Kashang row at intervals
of 8 feet and sometimes
15 feet.

Soybeans and millet.

For the most part,

soybeans were planted
at intervals of 15 to 20
feet just at the edge of
the millet row.

The millet is planted
the latter part of April
and about two weeks
later the soybeans are
planted in hills.

Soybeans and Kashang,
and soybean and millet
fields were seen very
frequently.

In many of the soybean-
millet fields, the
millet is being harvested.
The heads are first cut

off. We saw some Korean
women cutting milled
heads. The milled stalks
are then cut and allowed
to cure in the field. These
stalks are chopped, soaked
in water, mixed with
soaked soybeans and
used as cattle feed.
In one field we saw
them cutting the stalks
carry them to the end
of the row and then cut
the heads off.

Some excellent fields
of mung bean, adzuki
beans and buckwheat
were seen. We found
mung beans and the
adzuki quite extensive
grown.
a few fields of

native cotton were
seen.

A few small patches
of sesame were noted.
So far we have not
seen very much sesame
grown alone. It is
generally scattered
sparsely among other
crops or grown on the
edges of other fields.

Thursday - August 28, 1930.
Heijo - Chosen

Warm and clear. In the morning went to a Korean grain market on the outskirts of the city and also an outdoor market. At the outdoor market we found the Korean farmers had brought in

Peaches

Apples - several varieties

Egg plants - 2 varieties

Cucumbers.

Chinese cabbage - young plants

Red peppers.

Plums

Melon - several varieties

Chinese cabbage

On the way to the grain market we saw a Korean boy grinding soaked mung bean into a paste with a hand stone mill. The beans are first soaked, then rubbed and the green skins washed off. After grinding into a paste or batter, chopped garlic and red peppers are added to the batter. The batter is then fried in the form of pan-cakes. Pictures were taken of the

At the grain market section we found about the same

conditions as at the market visited the other day. The principal grains were millet, Adzuki beans, and mung beans with very few soy beans. We collected four rather interesting varieties of soy beans.

After our market visit we went to the grain inspection office of this prefecture. We were shown the various varieties of soy beans and given data concerning the shipment of soy beans yearly from this prefecture. Last season - Nov. 1 to Nov. 1

263,000 bags of 2 bushels each were shipped out from various points. We were advised that Jinsen is one of the principal seed producing areas of this prefecture and that we should visit it.

One of the principal native varieties is the Kokusai.

The Noda Soy Sauce Factory of Japan obtains most of its soy beans from this prefecture.

The director in charge said that they would put up samples of all grades

and varieties they
have on hand for us.
Also tomorrow they
were to grade 500 bags
received from various
sources for export.
They asked us to come
down to the warehouse
on the Daido River
and would be glad to
give us samples.

Friday - August 29, 1930.
Heijo. Korea.

Rained all night and
nearly all the morning.
About 10 A.M. went to
the Grain Inspection Office
where we met Mr. Mats-
moto, Director of Heian
Nanto Prefecture Inspection
Office and whose head-
quarters are at Chinnampo.
On account of the rain
the inspection of the 500
bags of soy beans are not
to be inspected and
graded today. Mr. Mats-
moto advised that he
would phone us in the
morning at what time
he would inspect the
beans

He gave us much information concerning soybeans in the Heian-nando Prefecture. From Nov. 1, 1928 to Oct. 31, 1929 263,090 sacks of soybeans were inspected, graded and shipped from this prefecture. Of this number only 6 were of excellent grade and 689 of first grade. 225,897 sacks were of the 3rd grade while 2,059 sacks failed to pass any grade. The causes of failing to pass grade were:

1. Mould
2. Packing
3. Old seed mixed in

4. Dust

5. Mixed varieties

6. Dryness

7. Quality.

In 1929, 373,386 koku
of soy beans were produced
in Heian-lands Prefecture
with Daido County (in
with Heigo is located)
leading the counties.

The Heigo is the chief
improved variety grown
in the prefecture but
on account of its thick
skin it is not desired
by manufacturers of
soy sauce, tofu, and
miso. It brings 2 yen
less per koku than
the native varieties. The
tofu factories say

that it gives one-third less tofu than other varieties. The Prefecture seed and nursery farm is trying to develop other varieties with a thinner skin.

The chotan variety when grown in this prefecture becomes more or less mottled and although desired by soy sauce, tofu and miso factories the farmers do not care to grow it on account of its mottled appearance. The Uriaikon variety (large seed) and the Yagi (Hokkaido) are also grown to a very considerable extent.

Saturday. August 30. 1930.
Heigo. Chosen.

Warm and clear. In the morning we went to the grain inspection office where we met the grain inspectors. We went to the storage yard of a Korean grain merchant on the Gaido river where 500 bags of soybeans were to be inspected and graded for export to the main island.

Samples of beans were taken from several bags and examined carefully. The dirt was separated out and then the seeds cracked. About 8 out of 10 seeds were found

to have brown germs,
indicating either poor
storage or curing of the
seed. The inspectors
refused to pass the
seed. The merchant had
already sold the seed
to an exporter at
Chimampo and had
expected either 3rd or
4th grade. Either of these
grades would allow
export, after the beans
were graded, several
sacks were weighed.
After weighing, some
of the sacks were
measured by dry
measure. More and
still pictures were
taken of grading.
cleaning and loading.

A large Korean sail
boat was being loaded
with beans for ship-
ment to Chinnampo.

Several samples of beans
were obtained, and one
sample of wheat from
this storage yard.

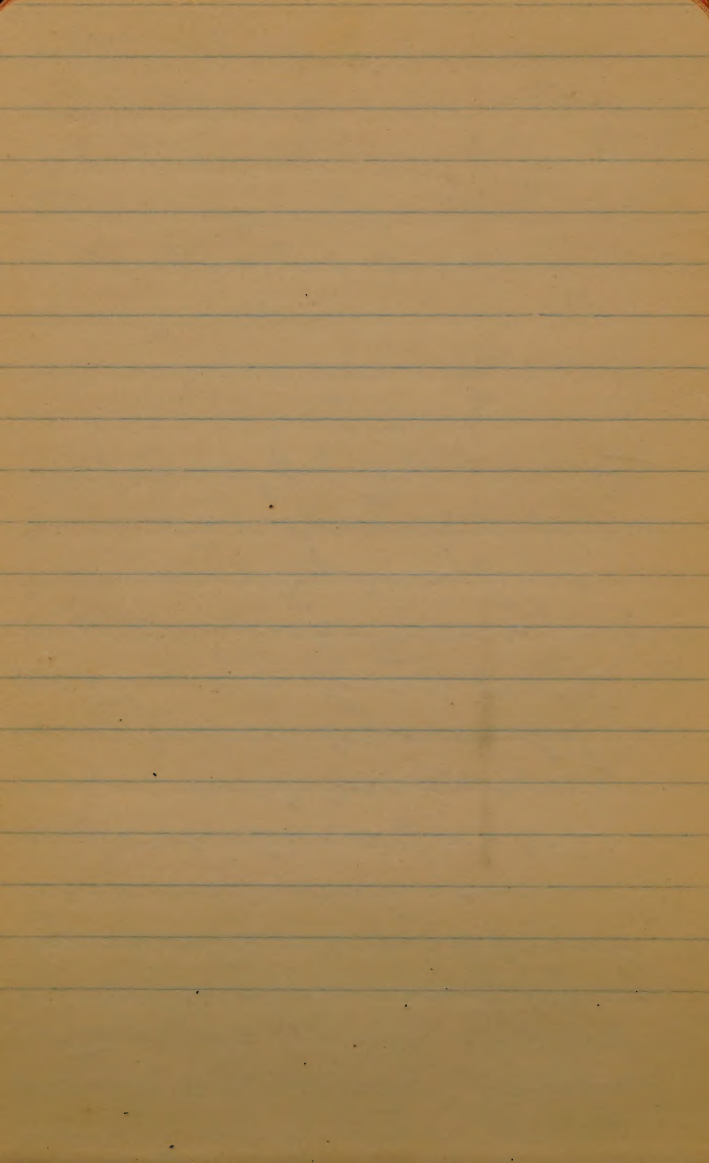
The following items
were used in grading
the soy beans on the
inspection card.

1. Koken
2. Dirt or stones
3. Trash-pods - etc.
4. Rotten seed
5. Immature seed
6. Insect injured seed
7. Broken seed
8. No total
9. Remarks

After lunch we visited another grain store section of the city that the inspectors told us about. We succeed in picking up 9 samples of soybeans one of which contained the largest yellow and green seeded varieties we have found in Korea. These beans are said to be used by the Koreans in making their own miso and soy sauce.

In this section we found a small Korean market place. Nearly all of the vegetable stands had pots of fresh bean curd

and jars of young
bean sprouts. Several
stands had jars
of boiled young bean
sprouts, a product
we have not seen
before. Thus far we
have not seen any
soy bean sprouts
although last fall
we found them quite
commonly in the
various market places.
Official postage



Sunday, - August 31, 1920
Heijo - Chosen -

Wrote some official
correspondence.

Went out to the
Botanikai section
for a short time in
the morning and
early afternoon. Some
of the vetch and other
legumes are beginning
to pod.

In the afternoon Mr.
and Mrs. Lutz called. Mr.
Lutz advised that there
are several species of
vetch growing in this
vicinity. There is a very
early form which
matured seed some
time ago. Mr. Lutz

collected a small amt
of seed and will give
us a sample.

Monday - September 1, 1930.

Heijo - chosen.

Sengkori - Section.

Warm and clear in the morning left for the Sengkori section east of Heijo. We made a circle about this section covering about 14 miles. In the various farm sections passed thru we found soy beans grown quite extensively. There ^{were} many large fields planted alone to soy. We also large fields of soy beans and corn (corn 4-8 feet in the row and two to 4 hills of beans between the hills of corn. Soybean and kaohany fields

were also quite commonly
grown. A few fields of
water cotton were noted
here and there but the
growth was quite poor
and plants had very
few blossoms and bolls.
Mung beans were
found quite generally
grown with kaoliang
and also with buckwheat.

In visiting the hill
regions we found
wild legumes in
abundance. *Trifolium*
lupinaster now in
full bloom was very
abundant in several
sections. This looks as
though it might be
of value for a green
manure crop.

It is a low place
seed was gathered
of a yellow flowered
Hemerocallis was
collected.

We also found a
number of grasses which
we had not seen in
other sections visited.
We were fortunate
in finding along a
grath side the wild
adsurki (*Phaseolus*
sp. with mature seed.
A few pods of the wild
running bean were also
found.

Several species of
Lespedeza were noted
in the hill sections
Aeschynomene indica
was found along the

Edges of fields in the
low lands. In one
Kao Iang field it was
so thick that it looked
as though it were sown.
The seed was maturing
and more seed was
collected. This plant
appears to us to have
value as a summer
green manure crop
either on moist lands
or dry lands.

Tuesday September 2, 1930.

Ritsuri, Chosen.

Mr. Lutz, agricultural
adviser of Union Christian
college called in the
morning and took us
out to near Ritsuri
village. We visited the
farm of the Nippon
Sugar Co. consisting
of about 250 acres.

The farm is given to
sugar beet culture
and a four year rotation
is followed: sugar beets,
millet, soybeans and
wheat. German farm
machinery is used
and rather deep
plowing (8-10 in) is
practiced. The manager
Mr. stated that

they cannot follow this rotation but two years as the soybeans make too much a growth. In the rotation, manure is applied only to the sugar beets. The variety used is the "Klein Wanzleben" and this variety is the only one grown by the farmers. The sugar content ranges from 12-14 % and the yield of beets on the Company farm 8000 to 12000 lbs. per acre. The Korean farmers obtain only 3000-4000 lbs. per acre and receive \$8.50 per 1000 lbs. The small yield is due to the shallow plowing (3-4 in)

by the Korean farmers
and the lack of
fertilizers.

With millit the native
farmers obtain 12-16
bushels per acre while
on the company farm
20-30 bushels are
obtained. The Korean
farmers obtain in this
section 12-16 bushels
of soybeans and the
sugar beet farm from
20-24 bus. per acre. In
wheat the Korean
farmers obtain 12-16
bushels per acre and the
sugar beet farm 18-20 bus.
Rye yields 30-40 bus. per
acre and barley 10-15 bus.
The sugar beets in Hokkaido
are said to run from

14-16 % sugar. Sugar
beets in Korea lose pract-
ically all of their leaves
in the rainy season and
do not make a very large
growth. New leaves start
the latter part of the
rainy season in August.

The farm has a
lifestock section of hogs
sheep and cattle and
has some fields of alfalfa.
Usually 4 cuttings
are obtained. In this
section small patches
of alfalfa are grown by
Korean farmers. The
Chosen government
helped finance the
farmers in getting a
start by having them
put out $\frac{1}{4}$ acre. For

This amount of land
the government gave
the seed, fertilizer and
ten years.

A visit was made
over the farm inspecting
the fields. Some excellent
fields of soybeans were
noted.

A visit was also made
to a farm of the Sugar
Company run by a
Korean farmer. This
is given largely to
apple orchards and
trucks growing. In the
apple orchards a late
variety of soybeans is
grown for hay. In
some of the orchards
alfalfa is grown and
used for hog feed.

In this section
several fields of Kauling
were seen with ex-
cellent stands of *Archy-
monne indica*. Much
much *T. lupiniaster*
was noted. Some ex-
cellent stands of Korean
lespedeza and *Guzia*
purpurea were seen. Mr.
Gatz advised that this
combination makes an
excellent pasture which
stands much grazing
and hard usage.

Wednesday.
September 3. 1930.

Kings. Chosen

Postage	1.63
Grazing wild - 2 lbs.	- 20
Goyria seed 7.11	2.50

In the morning went
to office of the Agr. Soc.
of the Heian Wards
Prefecture where we
met the master Mr.

In view of the fact that
the crop work is handled
by the Prefecture's Depart.
of Agr. The Society pays
most of its attention to
animal husbandry
work in the improvement
of cattle, especially dairy
cattle. Their society has
two forage crop men
who pay special

attention to feeds and feeding. Both men were out today judging the care and piles of manure. The Society offers prizes to the Korean farmers at this time who take best care and have the best kept manure piles. Animal market days are held once a week under supervision of the Society.

On our return from the Society office we saw some wild grapes a small Korean market. About two lbs. were purchased for the seeds. The grapes are small

black and quite sour.
After lunch we went
to the Experimental
Gardens of the Union
Christian College and were
shown around by Mr.
Lutz. In view of the
building of a large plant
by the Corn Products Co. of
D.S. Mr. Lutz is doing
more or less experimenting
with corn and has
some plots which will
yield 90-100 bu. per acre.
More or less experimenting
is being done with
clovers and wild legumes.
While on the grounds a
Korean woman came
with about 8 pounds of
Zoysia pruriens, var.
 Japonica seed which

she had collected outside
of Keijo and desired to
sell Mr. Lutz. As he had
already purchased
some, we bought the
seed which was very
clean and well cured
for £2.50.

After looking over the
experiments we went
out in the hill country
west of Keijo. On
passing through the
rice sections we noted
soybeans and kaoliang
growing along the edges
of the rice paddies, a
system we had not
noted before.

On one of the Korean
farms, a variety of

hung bean was found
which we have never
had. It is a very
erect form growing
up corn stalks as high
as 6-7 feet. The seed just
maturing is a light
green seed and should
be good for sprouts. A
very early maturing
adzuki bean was also
found with about the
smallest seed we have
yet seen.

Near a field we found
considerable goyacia
sod which looks as
though this grass would
make a good pasture.
We had a opportunity
of seeing what it did
under rough usage.

Where it trampled
very much along
paths it becomes flat
on the ground forming
a sort of road.

In the harvesting of
running beans much
attention is given the pods
are picked and then
threshed out with
flails.

Thursday, Sept. 4, 1930:
Chinampo. Chosen.

Left Keijo. Chosen	7.45 AM
Arr. Chinampo	9.00 AM.
Left " "	4.50 P.M.
Arr. Keijo.	6.03 P.M.

On the way to Chinampo we passed through quite extensive rice growing sections. On the up-lands soybeans with millet, and soybeans alone were quite generally growing. About 75% of the millet with soy-beans has been harvested, thus leaving the soy in full possession of the ground. The soy in the milled fields are beginning to yellow.

From a few miles out of
Chinampo there are
many large apple orchards.
A few rather large peach
orchards were noted
here and there. The trees
are too closely planted
together and look like
a forest rather than an
orchard.

At Chinampo we went
to the Heian nando
'Grain inspection office'
where we met Mr.
Uzaki the Director. We
were given quite com-
plete information about
inspection and grading
of soybeans as well
as varieties in this
prefecture.

Three large farms

in the vicinity of
Koshin Kokai are
growing large amounts
of improved Chotan.
The ordinary Chotan
when grown in certain
parts of the prefecture
becomes more or less
mottled with brown.

About 60% of the
beans reported from
Chinampo are used
for miso and soy
sauce, about 30%
are used for bean
curd and the re-
maining 10% for
cooking beans, roasted
beans and confections.

Beans are selling
at 12.80 yen per Koku
at the present time.

The price varies with the season of the year, usually the highest prices in the fall and winter. There is about \$30 per bushel difference in the different grades.

We were taken to a grain merchant who exports large quantities of soybeans to Japan and also does a large business in hulling and polishing rice. We visited the warehouses where considerable quantities of beans were in storage. As there were several varieties and grades

from different
districts in northuss
chosen, ~~these~~ were
given samples of
each (16 in all), the
were advised that mostly
yellow beans are shipped
to Japan for bean
curd, miso, soy sauce,
and confections. ~~The~~
Black or brown beans
are exported. Beans of
the bi-color, such as
black and brown - are
not allowed to be ex-
ported to Japan.

3

Friday - September 4, 1930.
Taihei, Chosen.

Warm and clear.

Yesterday while returning from Chinnampo it was noted that soybeans alone and with other crops were quite generally grown from Taihei to near Heijo, a distance of about 15 miles.

This morning we started for Taihei going through the farming region partly by the main road and partly along the railroad. The wild soybean and the wild adzuki bean were found in great abundance along the

roadsides. We found
a very small patch of
wild soybeans badly
affected with leafspot,
There for we had not
found any leafspot
on the wild type and
though it resistant to
leafspot diseases.

Several small fields
of castor beans and
soybeans were noted.
In some cases the castor
beans were planted at
intervals of 2 feet with
a hill of soybeans be-
tween the castor plants
In other fields the
castor beans were
planted at varying
intervals with hills
of soybeans between.

On previous trips
many fields of adsurhi
beans, soybeans and
buckwheat planted
together were noted. In
these regions we found
many excellent fields
of soybeans and buck-
wheat. The hills of buck-
wheat were planted
at varying intervals
along side of the soybean
which were planted
in hills about 15 inches
apart.

Many fields of soybeans
and cucumbers were
also noted, and also
some fields of melons
and soybeans. The

Melons and cucumbers
had nearly all been
harvested. Ridged beds
about 4 feet wide are
used. Cucumber and
pumpkin plants are set
about 18 in apart in
a row in the center of
the bed. Soybeans are
planted in hills along
the edges of the beds at
intervals of 2-4 feet.

Some very fine fields
of many beans and
hazling were seen.
The mounds were of a
winning type and had
grass around the
hazling plants from
4-5 feet high.

The farmers are busy
cutting millet. One

plants in some cases
are placed in shocks to
cure while in other
cases the plants are taken
directly to the farm yard
where the heads are
cut off and the seed
threshed out with
flails, in two cases
yesterday we saw some
Korean women
rubbing the seed out
on the threshing floor
with their feet.

The harvesting is
beginning to mature
and a few fields were
cut, apparently these
first fields cut are

of an early variety seed
of which was obtained
Along the roadside
a few patches of yellow
sward clover were
found and seed
collected.

About 4.45 P.M. we
caught a bus on the
main road and re-
turned to Hengo
about 5.20 P.M.

Saturday, September 6, 1930.
Heijo. Chosen.

Bright and clear. In the morning went to the office of the Heijo lands grain inspection office to meet one of the inspectors who has just made a survey of the prefecture. He advised that the earliest beans are grown in the region about Jumseu. Last season the first beans came from Jumseu for grading Oct. 3.

We were also advised that in the region of Chunwa, the farmers make silage from locust branches and leaves and use small pit silos. We were given data

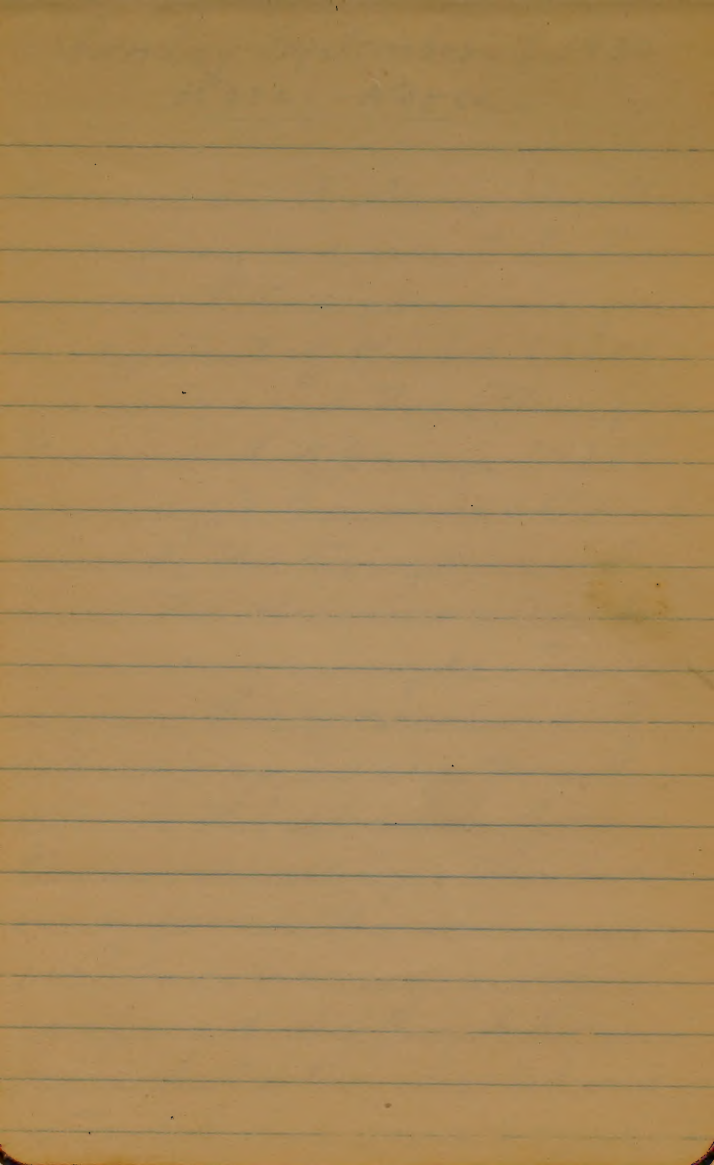
concerning the percentages of the different items in determining the grades of soy beans.

We learned that the Koreans were holding the Farmers' market day near the outskirts of the city so went there to look over the various products. The principal crops were red peppers, chinese cabbage, radishes and egg plants. In one section there was considerable native seed cotton which looked to be rather short staple. Under a tent there was a small pig market with about 150 small pigs in rope baskets.

there were many small
lunch stands about
the grounds. At some of
these were Korean women
make batter cakes with
mung bean paste and
chopped vegetables. At other
stands small flocks of
bean curd were being
fried on a piece of sheet
iron. In the grain section
very few shipments, the
grains being chiefly
millet, rice, adzuki
beans and mung beans.

After our visit to the
market we crossed a
river to the southwest
of town and went in a
hill and farming
region. We found
nothing new in the

wild plant line. On
the low land mostly
rice is being grown. Some
excellent fields of millets
have been



Sunday-September-7, 1930
Kosai-Korea.

Warm and clear. In the morning we went to two ancient temples - one for the spirit of Kishi (3800 years ago) and the other for the spirit of Dangi (4385 years ago). We were allowed inside the temples and saw the shrines which were very simple. Twice a year the government defrays expenses paid given the shrines for Korean worship. On our way from the shrines we saw many wild grapes at different Korean market stands. At one stand we saw some

hazelnuts which we
were told had been collected
in the mountain districts.
No seed was purchased
as the dealer did not
know how old the seed
was.

We took the bus at 12.30
and arrived at Kosei
about 2 P.M. and had
lunch in the Agr. Soc.
Building. After lunch
we visited the tombs
of some ancient Korean
Kings. One of the Japanese
Agr. Experts of the Soc. went
with us. The tombs of
stone chambers are
within large hills of
earth. Some very
beautiful paintings
are on the walls and

ceilings of the tombs.
The Tombs are located
about 3 miles out of
Kosai and one has to hire
a car (3 yen).

The farming country
about here is hilly and
also low lying valley
land. Considerable rice
is grown. On the higher
lands, millet, soybeans,
buckwheat and many
beans are grown most
extensively, also Kaohung.
On the way to Kosai
some few fields of
upland rice and soy-
beans in mixed planting
were observed, being
planted in a similar
way to millet & soybeans.
At least 90 % of the

millet mostly grown
with soy beans and of
the foxtail (Setaria) type
has been harvested. Along
the way farmers were
observed threshing out
the heads by flailing.
Most of the millet is
cut by hand and carried
to the farmhouse on oxen,
carts and sometimes
by the farmer on his pack.
Three or four fields were
observed today where the
heads had been cut and
the stalks left standing.

Monday - September 8, 1930
Heizo - Choseru.

Warm and clear. In the morning we went to the Animal Market day on the outskirts of Heizo at the invitation of the Master of the Agr. Soc. When we arrived there were about 40 head of oxen on the grounds and we were told it was a little early.

About 1000 head of cattle are sold monthly or traded at this market. For the most part the animals are oxen, very few cows or calves being traded. The average price per head for 4 yr. old is 90 yen.

Occasionally a good bull brings 250 yen. Bulls for breeding range from 150-200 yen. The cattle sold are for beef or work animals.

Heijo is noted for its beef cattle. In this prefecture there are about 10 cattle to every 30 farms while in the adjoining eastern prefecture there are 15 cattle to every 30 farms.

Through the Prefecture Ag. Societies, improved bulls are sold to farmers for breeding purposes but no fee can be charged for service.

In summer time soaked hay bams are

fed to cattle with
green wild hay and
legumes. In winter
time dried soybeans
are fed with wild
grass and legume
hay.

After the visit to the
market, we went to
the hill section north-
east of Higo. In this
region we found
legumes very abund-
ant especially the
lespedeza. We found
mature seed of a
small growing hemero-
callis species which
we have not seen
in any of our trips
thus far. We were
able to collect a fair

amount of seed in
this region. On our
way back to town
we saw a number
of Korean stores, small
pears which we saw
wild pears gathered
from the mountain
and hill regions.

Tuesday, September, 9, 1930.
Station. Chosen,

Cloudy and warm.

Left Keijo at 9.30 A.M.
Arr. Shariin .. 12.10 P.M.

From a short distance above Kokai-Koshu we began to observe more truck-
wheat than we have
seen in other sections.
Many large fields
were grown alone but
for the most part
the crop was grown
in mixed plantings.
In many fields the
outer three or four
rows round the ends
of the rows were
planted to truckwheat

and the remainder
of the field either to
soy beans, mung
beans or adzuki beans.
Mixed plantings
of buckwheat and
mung beans, and
buckwheat and
soy beans were quite
numerous. Millet
and soy beans
became more common
as we approached
the Shariin District.
The soy beans were
planted on the sides
of the millet ridges
anywhere from
4-15 feet. Several
excellent fields of
soy beans were
noted.

After reserving
rooms at the inn
we went to the
Experiment station
and found the director,
Dr. Takahashi had
not yet returned from
the main island, one
of his assistants ^(Mr. Hoshino) took
us over the fields.
On the sunbeam
variety work, they
have over 1500 ^{and}
varieties and selections
under test. In this
work there are ten
plants to a variety
or selection. The plants
are about 8 inches
apart in the row
and the rows about

30 inches apart. These varieties and selections are grouped according to the region from which they were received. In a variety plot test more than 250 varieties are being tested for yield. Some very excellent varieties were noted among the varieties and selections.

Many excellent lines of work are being carried on at the station with sugar beets, millet, Kaoliang, soybeans, adzuki beans, green manure and crop rotation, the

Common crops
in the Sharim region
is millet with
soybeans followed
by winter wheat.
The millet is sown
on ridges in April
and the soybeans
planted two weeks
later on the side of the
ridge. The millet is
harvested during the
forepart of September
and the soybeans
from the middle to
the latter part of Sept.
The millet ridges
are plowed to one
side making new
ridges on which the
wheat is planted.
We were advised

that the soy beans
grown in mixed
plantings are used
only for cattle feed
while the beans grown
by themselves are
sold as a grain crop.

At the station they
have seed of a wild
soy bean much larger
than any we have
seen. It is identical
with our sooty variety
but is said to be a
winning sort.

Wednesday-Sept. 10, 1930..
Shakim, Chosen.

Cloudy and cloudy. In the morning went to the exper. sta. where we met Mr. Sawamura the soybean expert Hokkaido Prefecture - and yield with farmers in soybeans alone - 20 bus. per acre. In mixed plantings (with millet) 8-10 bus. per acre. In the exper. sta. 24-28 bus. per acre are obtained. With millet & soybeans, millet yields 5 bus. and says 1 bus. per acre in the low lands. In the hill sections 3-4 bus. soybeans and $2\frac{1}{2}$ -3 bus. of millet in the mixed plantings.

For harvesting soy beans
are pulled by some
and cut with sickles
by others. In some cases
the plants are stood up to
cure in the fields but in
others they are brought to
the farm yards to cure
In this section Sept. 25
is the best time to plant
wheat. Soy beans are
harvested from Sept. 15 to
Oct. 15. About 2 weeks after
wheat harvest the soy beans
are harvested and left
in the field to cure for
2 or 3 days and then
carried to the farm yard
to cure completely. The
threshing is done during
October and November.
The wheat is planted in

The furrows, wheat is
harvested late in June.
Adzuki beans are planted
after the wheat.

Soybeans & millet - 1. ^{wheat} planted
wheat - adzuki - 2. ^{wheat har.} adzuki sown

Millet & soybeans - 3

Adzuki beans are planted
quite often between wheat
rows before the wheat is
harvested. If the ground
is dry enough the adzuki are
planted before wheat harvest,
otherwise after wheat harvest.

Sesame is never planted
alone but is mixed in with
other crops.

Millet is planted about
Apr. 15 - Apr. 30 and the soy-
beans sometimes a month
later but more often farmers
plant the beans just after
the millet has come up.

Mr. Sawamura took
us over the station
plots and variety tests.
They have under test
800 varieties and
selections received from
the Suruga Sta. the
past spring, 209
varieties and selections
of the Shonan Station's
breeding work and
500 numbers of
native Korean varieties
received from the
Soybean Exhibit of the
Chosen Fair last year.
The Fair varieties re-
present the best native
Korean varieties grown
by farmers throughout
all of the prefectures
of Chosen. This is

The large lot we saw
on exhibit at the Fair
last October and
were promised seed of.
Through a misunder-
standing, we were
given only 12 of the
best varieties of soy-
beans, adzuki beans
field beans, and
field peas.

We were advised by
Mr. Sawamura that
the reason for failure
to send us seed of
the native varieties
under test was that
when they came to
check up the seed
with the variety names
they found many
errors. They decided

to grow them the
next season, correct
the varietal names
and send us seed of
the 1930 crop. Mr.
Sawamura also said
they would be glad to
give us seed of the
500 Fair samples
which ~~we~~ missed
securing at Keijo.

After visiting the
experiments we went
out in the farming
section. We saw
many fields of adzuki
and mung beans
grown in alternate
rows. In nearly
all cases the mung
beans were very badly

affected with leaf-spot while the adzuki beans in adjacent rows were comparatively free from it.

More or less sesame is grown in this region but always scattered in with some other crop. One field (small) of sesame and soy-beans were seen.

Several fields of sesame and cotton were noted. Many fields of soy beans, adzuki beans, mung beans, and buckwheat were seen.

Nearly all of the millet has been harvested. We saw

no millet fields
without soy beans.
Many fields of
kaoliang have been
cut and the plants
are placed in large
stacks to cure.

Soy beans are yellowing
fast and many
fields should be
mature in about
10-14 days.

After lunch a short
trip was made to the
foot of the mountain
west of Shao-shan. In
a soy bean field
Aeschynomene indica
was found in
abundance being
about 30 in. high.

The excellent growth
of this annual strikes
one more as he sees
it about that it will
make an excellent
summer green manure.
About 90 per cent of the
seed was mature and
a good sized sample
was collected. On our
walk about the foot of
the mtns. not many
legumes were noted.
We have many more
legumes in the regions
about Kijjo.

On our way from
the farming section
we visited the forestry
garden of the Shariin
Agr. School. Seed of a
purple flowered native

Thursday-Sept. 11. 1930.
Heigo. Chosen.

Cool and clear. In the morning we went to the office of the Prefecture Agr. Society where we met the Agr. engineer, Mr. Sakoyo, and the animal husbandry man, Mr. ^{Tanazaki} Tanazaki. We were told that the beans for the most part in Daids Co. were produced for animal feed. During the heavy work months the ~~dark~~ animals are fed largely on soy beans - in the cold months the beans are boiled and in the warm months the beans are soaked in cold water. When the

Farmers run out of
dry beans in late
summer. Green soy-
bean plants are fed to
the cattle. Only enough
soybeans are cut for
a day's feeding.

Some silage work
is being done by the
Agr. Soc. among the
farmers. Only pit
silos are used. Wild
legumes, weeds and
grasses are ensiled
and also alfalfa.

After lunch we took
a trip west of Heigo
in a shell section not
previously visited.
On a small table

land section we
found considerable
wild wing beans
just beginning to ripen.
This species makes a
very good growth and
has a small brown
seed. As it is generally
found on rather poor
soil it may have
possible value as a green
manure crop on some
of our poor soils.

The wild soy bean
was found in great
abundance and there
are apparently two
varieties of this species
one with long, narrow
leaves and the other

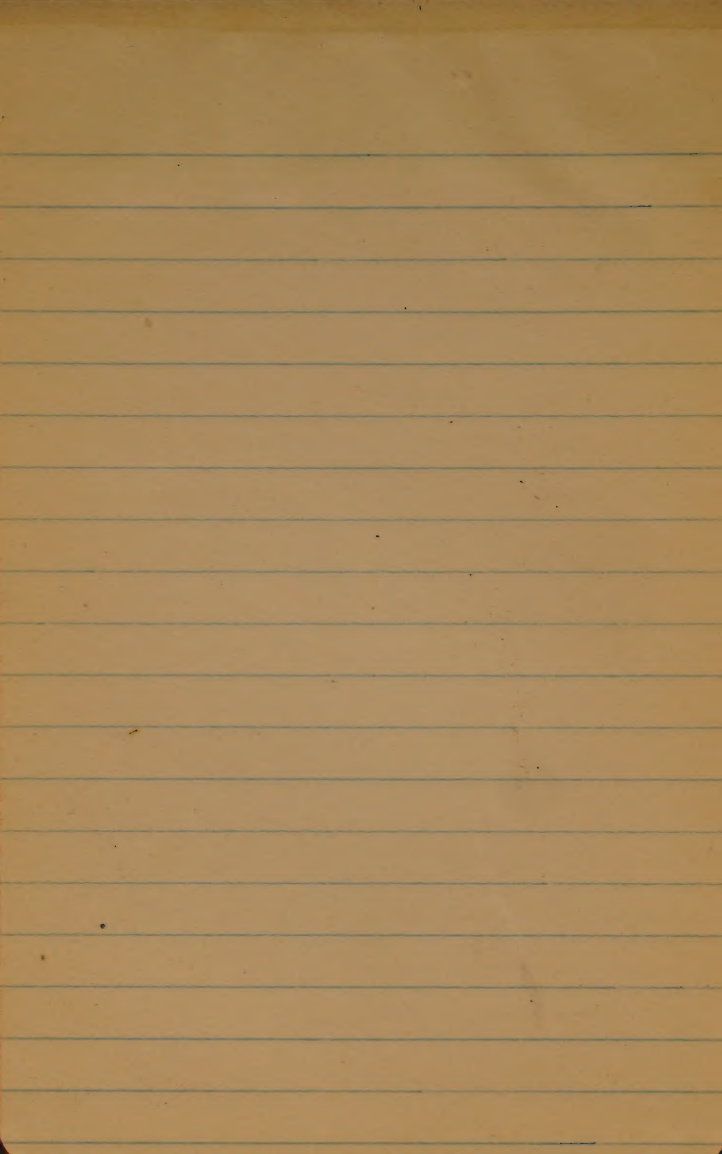
with obovate leaves.
all of the plants were
badly affected with a
leaf spot which
appears to be different
from that found on
the wild soybean in
a recent trip. The pods
are beginning to yellow
and with cool clear
weather seed should
be mature within
a few days.

Near this section
we found seed of
a grass, *Pennisetum purpurascens*
maturing. This makes
a good growth and
with the abundant
basal growth may

have value for pasture.
Rather an interesting
smut was found on
the heads of this species.
It was found more or
less in all patches
found in this section.
Although there were
several other species
of grass nearby, none
were found affected
with this smut.

On our way from
the Agr. Soc. office we
saw at a small Korean
grocery stand shelled
green vegetable soy beans.
This is the first we
have seen the shelled

Frans. We also stopped
at the open vegetable
market and at
several of the stands
we found baskets of
the shelled green soy-
beans. Further dishes
of boiled mung bean
sprouts are more
generally seen. Soy bean
sprouts apparently
are now coming on
the market for us
observed them at
several stands whereas
on previous visits we
only saw mung bean
sprouts.





G. P. O. Item No. B1-B2

